

STATUS OF PENDING CLAIMS

1. (Previously amended) A sample detection apparatus, comprising a polarized radiation source, flow chamber and signal detector, said flow chamber placed to contact polarized radiation from said polarized radiation source, said signal detector placed to selectively detect radiation propagated from said flow chamber at about 54.7 degrees from the direction of polarization of said contacted polarized radiation, said selective detection being independent of anisotropic radiation emission.

2. (Original) The sample detection apparatus of claim 1, comprising a trajectory of a sample stream that is orthogonal to said irradiation source.

3. (Original) The sample detection apparatus of claim 1, comprising a trajectory of a sample stream that is orthogonal to said signal detector.

4. (Original) The sample detection apparatus of claim 2, wherein said trajectory of said sample stream is parallel to said direction of polarization.

5. (Original) The sample detection apparatus of claim 4, wherein said signal detector is placed to selectively detect radiation propagated at about 54.7 degrees from a line parallel to said trajectory of said sample stream.

6. (Previously amended) A flow cytometer, comprising a polarized radiation source, flow chamber and signal detector, said flow chamber placed to contact polarized radiation from said polarized radiation source, said signal detector placed to

selectively detect radiation propagated from said flow chamber at about 54.7 degrees from the direction of polarization of said contacted polarized radiation, said selective detection being independent of anisotropic radiation emission.

7. (Original) The flow cytometer of claim 6, comprising a trajectory of a sample stream that is orthogonal to said irradiation source.

8. (Original) The flow cytometer of claim 6, comprising a trajectory of a sample stream that is orthogonal to said signal detector.

9. (Original) The flow cytometer of claim 7, wherein said trajectory of said sample stream is parallel to said direction of polarization.

10. (Original) The flow cytometer of claim 9, wherein said signal detector is placed to selectively detect radiation propagated at about 54.7 degrees from a line parallel to said trajectory of said sample stream.

11. (Previously amended) A sample detection apparatus, comprising a polarized radiation source, flow chamber, signal detector and a trajectory of a sample stream that is orthogonal to said polarized radiation source and said signal detector, said polarized radiation source placed to contact said trajectory of said sample stream with polarized radiation, said polarization direction being 35.3 degrees from a line parallel to said trajectory of said sample stream, wherein said signal detector detects radiation emitted by said sample stream independent of anisotropic radiation emission.

12. (Previously amended) A flow cytometer, comprising a polarized radiation source, flow chamber, signal detector and a trajectory of a sample stream that is orthogonal to said polarized radiation source and said signal detector, said polarized radiation source placed to contact said trajectory of said sample stream with polarized radiation, said polarization direction being 35.3 degrees from a line parallel to said trajectory of said sample stream, wherein said signal detector detects radiation emitted by said sample stream independent of anisotropic radiation emission.

13. (Previously amended) A method of detecting fluorescent intensity for a sample in a flow cytometer independent of anisotropic radiation emission, comprising:

(a) contacting a sample in a flow cytometer with polarized radiation; and

(b) detecting radiation emitted by said sample at about 54.7 degrees with respect to the direction of polarization of said polarized radiation at the point of sample contact, said detecting being independent of anisotropic radiation emission.

14. (Original) The method of claim 13, wherein said flow cytometer comprises a sample stream having a trajectory orthogonal to an irradiation source.

15. (Original) The method of claim 13, wherein said flow cytometer comprises a sample stream having a trajectory orthogonal to a detector.

16. (Original) The method of claim 14, wherein said flow cytometer comprises a sample stream having a trajectory orthogonal to a detector.

17. (Original) The method of claim 14, wherein said trajectory is parallel to said direction of polarization.

18. (Original) The method of claim 17, wherein the point of observation of a signal detector is placed about 54.7 degrees from a line parallel to said trajectory of said sample stream.

19. (Withdrawn) A method for determining scattered irradiation passing through a filter, comprising determining a degree of polarization through a filter, wherein said degree of polarization is greater than 0.5.

20. (New) A sample detection apparatus, comprising a polarized radiation source, flow chamber, signal detector said device, wherein said flow chamber is placed to contact polarized radiation from said polarized radiation source, and said device comprises a polarizer with a pass-axis at about 54.7 ° from the direction of radiation polarization and is placed between said flow chamber and said signal detector, wherein radiation propagated from said flow chamber at about 54.7 degrees from the direction of polarization of said contacted polarized radiation is detected by said signal detector independent of anisotropic radiation emission.